

**Listing of Claims:**

1. (previously presented) A graphics chip comprising:  
a front-end in the graphics chip configured to receive one or more graphics instructions and to output a geometry;  
a back-end in the graphics chip configured to receive said geometry and to process said geometry into one or more final pixels to be placed in a frame buffer;  
wherein said back-end in the graphics chip comprises multiple parallel pipelines;  
wherein said geometry is determined to locate in a portion of an output screen defined by a tile; and  
wherein each of said parallel pipelines further comprises a unified shader.
2. (canceled)
3. (canceled)
4. (previously presented) The graphics chip of claim 1 wherein each of said parallel pipelines further comprises:  
a FIFO unit for load balancing said each of said pipelines.
5. (canceled)
6. (previously presented) The graphics chip of claim 1 wherein each of said parallel pipelines further comprises:

a z buffer logic unit; and

a color buffer logic unit.

7. (previously presented) The graphics chip of claim 6 wherein said z buffer logic unit interfaces with said scan converter through a hierarchical Z interface and an early Z interface.

8. (original) The graphics chip of claim 6 wherein said z buffer logic unit interfaces with said unified shader through a late Z interface.

9. (previously presented) A method for processing computer graphics comprising:  
receiving one or more graphics instructions in a front-end of a graphics chip and  
outputting a geometry;

receiving said geometry in a back-end of the graphics chip;

processing said geometry into one or more final pixels to be placed in a frame buffer,

wherein said back-end comprises multiple parallel pipelines;

using a setup unit to direct said geometry into one of said multiple parallel pipelines;

wherein said geometry is determined to locate in a portion of an output screen defined by  
a tile; and

wherein each of said parallel pipelines further comprises a unified shader.

10. (canceled)

11. (canceled)

12. (previously presented) The method of claim 9 further comprising:  
using a FIFO unit for load balancing each of said pipelines.

13. (canceled)

14. (previously presented) The method of claim 9 wherein each of said parallel pipelines further comprises:

a z buffer logic unit; and  
a color buffer logic unit.

15. (previously presented) The method of claim 14 wherein said z buffer logic unit interfaces with said scan converter through a hierarchical Z interface and an early Z interface.

16. (original) The method of claim 14 wherein said z buffer logic unit interfaces with said unified shader through a late Z interface.

17. (previously presented) A computer program product comprising:  
a computer usable medium having computer readable program code embodied therein configured to process computer graphics, said computer program product comprising:  
computer readable code configured to cause a computer to receive one or more graphics instructions in a front-end of a graphics chip and output a geometry;

computer readable code configured to cause a computer to receive said geometry in a back-end of a graphics chip;

computer readable code configured to cause a computer to process said geometry into one or more final pixels to be placed in a frame buffer,

wherein said back-end comprises multiple parallel pipelines;

computer readable code configured to use a setup unit to direct said geometry into one of said multiple parallel pipelines;

wherein said geometry is determined to locate in a portion of an output screen defined by a tile; and

wherein each of said parallel pipelines further comprises a unified shader.

18. (canceled)

19. (canceled)

20. (previously presented) The computer program product of claim 17 wherein said computer readable code configured to cause a computer to process further comprises:

computer readable code configured to cause a computer to use a FIFO unit for load balancing each of said pipelines.

21. (canceled)

22. (previously presented) The computer program product of claim 17 wherein each of said parallel pipelines further comprises:

a z buffer logic unit; and

a color buffer logic unit.

23. (previously presented) The computer program product of claim 22 wherein said z buffer logic unit interfaces with said scan converter through a hierarchical Z interface and an early Z interface.

24. (original) The computer program product of claim 22 wherein said z buffer logic unit interfaces with said unified shader through a late Z interface.

25. (previously presented) The graphic chip of claim 1 comprising a setup unit for directing said geometry into one of said multiple parallel pipelines wherein said geometry is determined to locate in a portion of an output screen defined by a tile.

26. (previously presented) The graphics chip of claim 1 wherein each pipeline further comprises:

a scan converter;

a rasterizer; and

a texture unit.